IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

RANDOLPH ELLIS, husband and wife; and DEBRA ELLIS, husband and wife; Plaintiffs, v. MLI TRANSPORT, LLC, a Kansas limited liability company; Defendant.	**8:13CV273** **MEMORANDUM AND ORDER**

This matter is before the court on defendant MLI Transport, LLC's motion in limine, Filing No. 67, and on plaintiffs' *Daubert* motion to exclude expert opinion and testimony, Filing No. 69. This is an action for damages for personal injuries sustained in a collision. Jurisdiction is premised on diversity of citizenship under 28 U.S.C. § 1332.

Both parties seek exclusion of the testimony of the opposing parties' expert witness. The defendant seeks the exclusion of the testimony of Colin H. Daly, Ph.D. It contends Dr. Daly's opinions are not based upon the scientific method, or upon methodology that is generally accepted in the field of biomechanical engineering. The plaintiffs contend the testimony of Brian Weaver, P.E., must be excluded because his opinion is unreliable and irrelevant.

I. Facts

In support of their respective motions, the parties submit the affidavits of their experts and supporting documentation. *See* Filing No. 68, Index of Evid., Exs. 1-14; Filing No. 73, Amended Index of Evid., Exs. 1-6; Filing No. 85, Index of Evid., Exs. 1-5; Filing No. 90, Exs. A-I; Filing No. 99, Index of Evid., Exs. 1-2; Filing No. 100, Index of Evid., Exs. 1-8.

The record shows that plaintiffs' expert Colin H. Daly has a Bachelor of Science degree in mechanical engineering from the University of Glasgow and a Ph.D. in bioengineering from the University of Strathclyde. Filing No. 90-8, Index of Evid., Ex. H, Affidavit of Colin H. Daly ("Daly Aff.") at 1; *id.*, Ex.A, Curriculum Vitae. He was employed for 38 years at the University of Washington as a Professor of Mechanical Engineering. *Id.*, Daly Aff. at 2. He has written numerous papers in the fields of bioengineering, physics research, and has consulted on biomechanics of injury and trauma. *Id.*, Daly Aff., Ex. B. He has reviewed the accident report, repair invoices, photos, medical records, diagrams, and deposition testimony in connection with this case. *Id*., Daly Aff. at 3.

The record shows Dr. Daly reviewed plaintiff Randolph Ellis's medical records and has conducted a conservation of momentum analysis, which is a generally accepted method of analyzing an impact. *Id.* at 3-4. The methodology is derived directly from Newton's Laws of Motion. *Id*. Dr. Daly utilizes the conservation of momentum analysis to determine the speed of Mr. Meskimen's tractor-trailer at the moment of impact. *Id.* He relies upon a peer-reviewed, in-vivo study to establish what velocity change is necessary to cause injury in a normal, healthy spine. *Id.* at 8-9; Ex. D, Bailey and Wong Study. He states his opinions and analysis comport with the generally accepted methodologies used in biomechanical engineering. *Id.,* Daly Aff. at 2.

The defendant's expert, Brian T. Weaver, is a Professional Engineer specializing in biomechanics, accident reconstruction, computer simulation and mechanical systems designs. Filing No. 68-1, Affidavit of Brian T. Weaver ("Weaver Aff.") at 1. He has a

Bachelor of Science in Engineering Mechanics/Biomechanics and a Master of Science in Engineering Mechanics. *Id.*; Ex. 2, Curriculum Vitae. He has also received specialized training in traffic accident reconstruction from Northwestern University Center for Public Safety in Evanston, Illinois, and holds two certificates of completion for that training. *Id.,* Weaver Aff. at 1. He has performed over 100 accident reconstruction analyses. *Id.* at 2.

In connection with this case, he reviewed the physical evidence captured in the post-incident photographs of the vehicles in their rest positions, including the skid mark. Filing No. 68, Index of Evid. Ex. 1, Weaver Aff. at 2; *Id.*, Ex. 3; Filing No. 73, Amended Index of Evid., Ex. 1, Engineering and Biomechanical Analysis ("Weaver report"). He also considered the separation distance between the vehicles post collision as depicted in the photographs, the damage to the vehicles depicted in the photographs, the depositions of William Meskimen, the owner-operator driving the defendant's vehicle, and of the plaintiff, Randolph Ellis. Filing No. 68, Index of Evid., Ex. 7. He expressed an opinion based upon a conservation of momentum analysis, and opined "there is no biomechanical basis to conclude that the forces and motions Mr. Ellis experienced in his cervical spine during the subject collision event were an exceptional contributor to his documented cervical condition." Filing No. 73, Amended Index of Evid., Ex. 1, Weaver Report at 26, (CM/ECF Page ID # 389). Weaver also criticizes Dr. Daly's methods. *Id.* at 26-28; Filing No. 68-1, Ex. 1, Weaver Aff at 2-10.

II. LAW

Federal Rule of Evidence 702 governs the admissibility of expert testimony and has "three distinct but related requirements: (1) the evidence must be based on

scientific, technical or other specialized knowledge that is useful to the finder of fact in deciding the ultimate issue of fact; (2) the witness must have sufficient expertise to assist the trier of fact; and (3) the evidence must be reliable or trustworthy." *Kudabeck v. Kroger Co.*, 338 F.3d 856, 859 (8th Cir. 2003). When faced with a proffer of expert testimony, trial judges are charged with the "gatekeeping" responsibility of ensuring that all expert evidence admitted is both relevant and reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999); *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 589 (1993); *United States v. Wintermute*, 443 F.3d 993, 1000 (8th Cir. 2006).

A trial court must be given wide latitude in determining whether an expert's testimony is reliable. *Kumho Tire,* 526 U.S. at 152. This analysis requires that the court make a "preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology . . . can be [properly] applied to the facts in issue." *Id.* at 147; *Daubert,* 509 U.S. at 592-93. The Supreme Court identified a number of factors that might assist the district court in determining the admissibility of expert evidence. *Id.* The court may consider several factors in determining the soundness of the scientific methodology including: (1) whether the theory or technique can be and has been tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the known or potential rate of error and the existence and maintenance of standards controlling the technique; and (4) whether the theory or technique used has been generally accepted in the relevant scientific community. *Id*. Courts must focus on the principles and methodology rather than the conclusion they generate. *Id*. at 595. "Expert evidence may be excluded if 'there is simply too great an analytical gap between the data and the opinion

proffered.'" *Union Pac. R. Co. v. Progress Rail Servs. Co.*, — F.2d —, —, 2015 WL 570300, *3 (8th Cir. Feb. 11, 2015) (quoting *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)).

Second, the court must ensure that the proposed expert testimony is relevant and will serve to aid the trier of fact. *Id.* at 592. Doubts regarding whether an expert's testimony will be useful should generally be resolved in favor of admissibility. *Miles v. General Motors Corp.*, 262 F.3d 720, 724 (8th Cir. 2001). Expert testimony assists the trier of fact when it provides information beyond the common knowledge of the trier of fact. *Id*. at 860. "The general rule that 'the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility,'" but "'if the expert's opinion is so fundamentally unsupported that it can offer no assistance to the jury, it must be excluded." *Lawrey v. Good Samaritan Hosp.*, 751 F.3d 947, 953 (8th Cir. 2014) (quoting *Nebraska Plastics, Inc. v. Holland Colors Americas, Inc.*, 408 F.3d 410, 416 (8th Cir. 2005); *see also Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1056 (8th Cir. 2000) ("Even a theory that might meet certain *Daubert* factors, such as peer review and publication, testing, known or potential error rate, and general acceptance, should not be admitted if it does not apply to the specific facts of the case.").

"Nothing in Rule 702, *Daubert*, or its progeny requires 'that an expert resolve an ultimate issue of fact to a scientific absolute in order to be admissible.'" *Kudabeck*, 338 F.3d at 861 (*quoting Bonner v. ISP Techs., Inc*., 259 F.3d 924, 929 (8th Cir. 2001)). Rather, the proponent of expert testimony bears the burden of providing admissibility beyond a preponderance of the evidence. *Lauzon v. Senco Prods*., *Inc.*, 270 F.3d 681, 686 (8th Cir. 2001).

The United States Court of Appeals for the Eighth Circuit adheres to the rule that when the application of a scientific methodology is challenged as unreliable under *Daubert* and the methodology itself is otherwise sufficiently reliable, outright exclusion of the evidence is "warranted only if the methodology was so altered by a deficient application as to skew the methodology itself." *United States v. Gipson*, 383 F.3d 689, 697 (8th Cir. 2004) (brackets omitted) (quoting *United States v. Martinez*, 3 F.3d 1191, 1198 (8th Cir. 1993)); *United States v. Dico, Inc*., 266 F.3d 864, 871 (8th Cir. 2001) (holding that the sufficiency of the factual basis of an expert's theory is open to any challenge on cross-examination, but sufficiency is not a reason to exclude the expert's testimony altogether). "As the Supreme Court emphasized in *Daubert*, 509 U.S. at 595–96, 'Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.'" *United States v. Vesey*, 338 F.3d 913, 917 (8th Cir. 2003). The gatekeeper role should not, however, invade the province of the jury, whose job it is to decide issues of credibility and to determine the weight that should be accorded evidence. *Id.*

III. DISCUSSION

The record shows that both experts are qualified to express their expert opinions. Both Mr. Weaver and Dr. Daly relied on reports, witness deposition testimony, photographs of the scene and of damage to the vehicle, the police report, plaintiff Randolph Ellis's medical records, and their years of experience performing experiments and other analyses concerning injuries in automobile accidents. These materials

contain the facts relevant to an accident reconstruction, a biomechanical analysis, and an injury causation analysis.[1]

The principles applied by both experts are standard, accepted accident reconstruction and biomechanics principles, and their opinions have sufficient bases in fact. Simply because each expert disagrees with the other's conclusions and criticizes the other's reconstruction methods does not render the methodology fallible. The court finds that each expert's methodology "fits" the facts of the case and that the proffered testimony will be helpful to the jury. Each expert's criticism of the other experts' testimony is properly the subject of thorough cross-examination and not a reason to totally exclude the testimony.

At this time, it appears that plaintiffs' *Daubert* objections go more to the weight than to the admissibility of the experts' testimony, subject to a proper showing of foundation and reliability. The record shows that the experts are qualified to testify to the opinions contained in their reports and those opinions satisfy *Daubert's* reliability requirements. The sufficiency of the opinions and the weight to be accorded them are matters for the jury to determine. The court will properly limit the experts' testimony to matters that would be helpful to the jury and are within the experts' area of expertise.

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[1] Courts have admitted accident reconstruction and biomechanics expert testimony based on evidence comparable to the evidence that Dr. Daly and Mr. Weaver relied on here. *See, e.g., Miles v. Gen. Motors,* 262 F.3d at 724 (expert considered a police report, photographs of the scene, plaintiff's medical records, plaintiff's radiology reports, witness statements and depositions, and medical literature); *In re Toyota Motor Corp. Unintended Acceleration Mktg., Sales Practices, & Prods. Liab. Litig.*, 978 F. Supp. 2d 1053, 1069 (C.D. Cal. 2013) (causation and biomechanics expert considered another expert's report, photographs the vehicle, medical records, and a police report); *Chavez v. Marten Transp., Ltd*., No. 10CV4, 2012 WL 988011 (D.N.M. Mar. 22, 2012) (accident reconstruction and biomechanics expert considered deposition testimony, a police report, plaintiff's medical records, plaintiff's worker's compensation complaint, and the parties' expert reports); *Paine v. Johnson*, No. 06C 3173, 2010 WL 749857 (N.D. Ill. Feb. 25, 2010) (accident reconstruction expert considered a police report and photographs of the vehicle damage and accident site).

Accordingly, the court finds the parties' *Daubert* challenges should be rejected and the parties' motions for an order in limine excluding the evidence should be denied.

IT IS ORDERED:

1. Defendant MLI Transport, LLC's, motion in limine (Filing No. 67) is denied;

2. Plaintiffs' *Daubert* motion to exclude expert opinion and testimony (Filing No. 69) is denied.

DATED this 10th day of March, 2015

BY THE COURT:

s/ Joseph F. Bataillon
Senior United States District Judge